

**ABSTRACT OF THE DISCLOSURE**

A space shift keying (SSK) modulation is disclosed. At the transmitter of a digital wireless communication with an antenna array, due to the fact that multipath fading will cause different responses for distinct array elements, different information signal bits (such as the "0" and "1" in binary shift keying) can be sent from different array elements to the receiver site. At the receiver site, the likelihood ratio test can be used to recognize the information signal bits transmitted from different array elements. The present signaling method for carrying information signal bits is a digital modulation method, which is known as space shift keying modulation.